This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

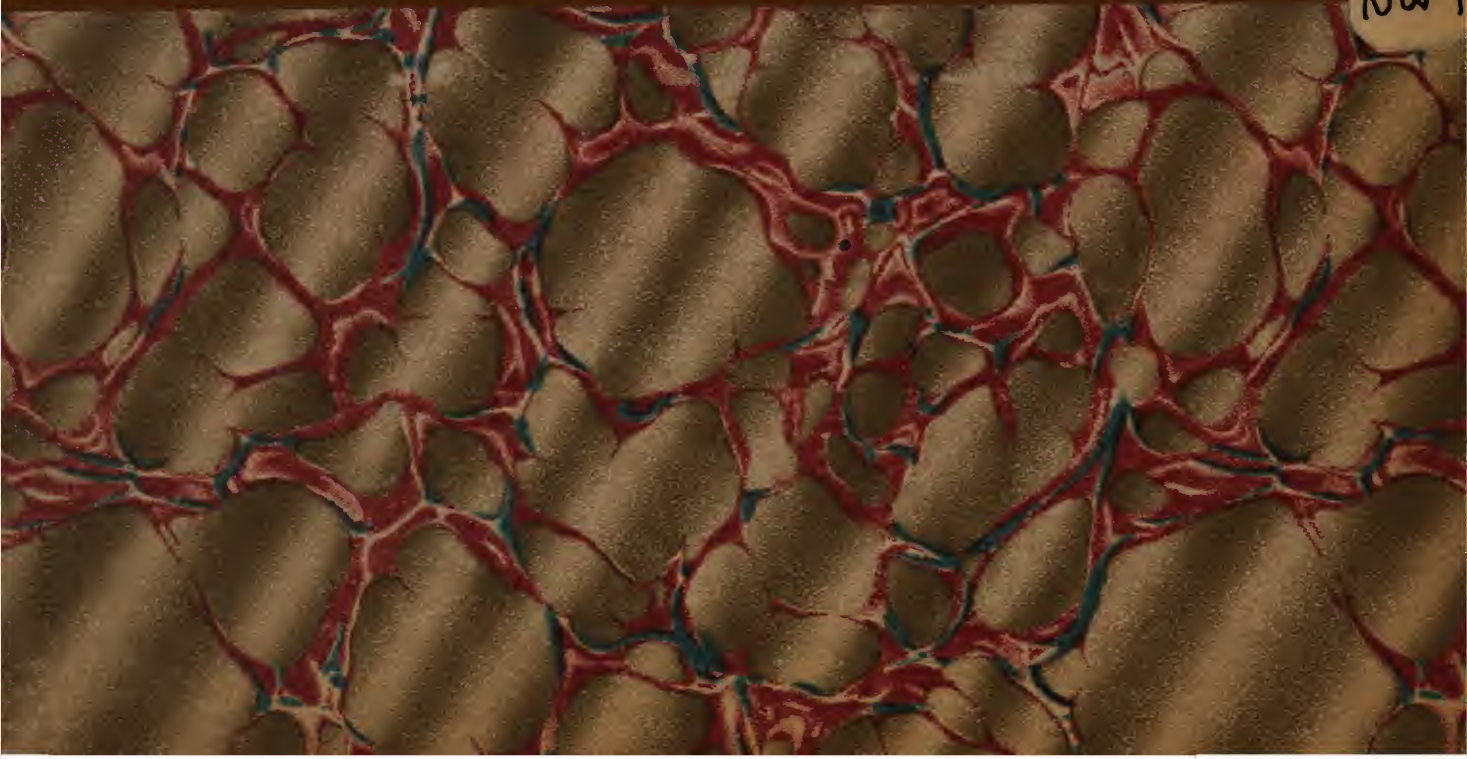
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at http://books.google.com/

Gilham - Military Manual - 1861.

War 1158 61.2



War 1158.61.2

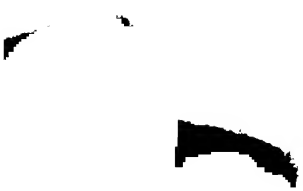
HARVARD COLLEGE
LIBRARY

THE BEQUEST OF
EVERT JANSEN WENDELL
CLASS OF 1882
OF NEW YORK

1918

Google

Digitized by Google



Digitized by Google

1158.61.1

MANUAL OF INSTRUCTION

FOR THE

VOLUNTEERS AND MILITIA

OF THE

UNITED STATES.

BY

MAJOR WILLIAM GILHAM,

INSTRUCTOR OF TACTICS, AND COMMANDANT OF CADETS OF THE VIRGINIA MILITARY INSTITUTE.

PHILADELPHIA:

CHARLES DESILVER,

1229 CHESTNUT STREET.

CUSHINGS & BAILEY, BALTIMORE, MD.

1861.

Digitized by Google

Wan 1158.61.2

HARVARD COLLEGE LIBRARY
FROM
THE BEQUEST OF
EVERT JANSEN WENDELL
1913
1918

Digitized by Google

BY AUTHORITY OF THE STATE OF VIRGINIA.

MILITARY MANUAL:

A Manual of Instruction for Volunteers and Militia,

BY

MAJOR WILLIAM GILHAM,

LATE U. S. ARMY; INSTRUCTOR OF TACTICS, AND COMMANDANT OF CADETS, VIRGINIA MILITARY INSTITUTE.

1 vol. Demi 8vo., 743 pages, and upwards of 200 Illustrations.

PRICE $2.50.

The subjects are: 1st, An Introduction, containing a glossary of the terms in use among military men.

2d. Army Organization, in which the organizations of Infantry, Cavalry, and Artillery are discussed, together with an outline of the duties devolving upon the various staff departments.

3d. Arms and Ammunition, containing a condensed description of the arms suited to, and used by Cavalry, Artillery, and Infantry of the present day, with directions for preparing the various kinds of ammunition for these arms.

4th. Infantry Tactics, embracing the schools of the Soldier, Company, Skirmishers, and Battalion, taken almost entirely from Hardee's

Digitized by Google

Tactics for the United States' Troops. In this, the prevailing systems of Scott for Infantry of the Line, and of Hardee for Light Infantry and Riflemen, as adopted by the general government, are strictly adhered to, except some few alterations which were necessary in harmonizing and blending the two systems, so as to supply and adapt them to the militia service.

5th. Target Practice.

6th. Cavalry Tactics, embracing the schools of the Trooper, the Troop, the Squadron, and the Regiment, taken with proper modifications from the United States Cavalry Tactics.

7th. Artillery Tactics, embracing the manual of the piece, and the school of the Battery, taken from the United States' Artillery Tactics.

8th. Honors to be paid by the troops, taken from the general regulations of the United States Army.

9th. Forms of Parades, Reviews, Guard Mounting, Orders, Musters, Rosters, and Guards, taken chiefly from the Army Regulations.

10th. Internal Organization of Companies, and the duties of Captains, taken from the Army Regulations, and drawn from the practical experience of Major Gilham.

11th. Duties in Camp and Garrison, Camps and Marches, from the same sources.

12th. Duties of the Staff Departments, together with the necessary forms of morning reports, requisitions, returns, &c., from the same sources.

13th. The manner of bringing troops into action. In which the various orders of battle, and the duties of infantry, cavalry, and artillery, when in action, are discussed.

14th. Courts Martial, embracing the organizations of courts, the rules of procedure, the findings, sentences, &c., together with the duties of the Judge Advocate, the forms of the orders for detailing the court, &c.

15th. Music, embracing the various calls for duty, &c., such as reveille, tattoo, breakfast call, dinner call, retreat, &c., &c.

16th. Appendix, containing the Articles of War.

Extract from the Report of Gen. W. H. Richardson, Adjutant General of Virginia, to the Governor.

"Major Gilham is a graduate of the United States Military Academy, has served in the army, and is well known as one of the most accomplished tacticians of the United States. I have carefully examined his Manual for Volunteers and Militia, and report that, so far as my judgment is reliable, it is the best work now known to me, or that I ever saw."

Digitized by Google

6-pounder.

Fig 14.

1. Lock chain, bolt, and eye plate.
2. Part of the lock chain.
3. Sponge and rammer stop.
4. Sponge chain hasp.
5. Earplate for sponge chain hasp.
6. Earplate to support worm. Key chain and Key.
7. Box of the elevating screw (Brass.)
8. Elevating screw (Head and Handles.)
9. Washer hook for handspike.
10. " " " Lockchain.
11. Linstock socket.
12. Cap-square chain.
13. Cap-square.
14. " " Key chain and Key.
15. Trunnion plate.
16. Handspike ring.
17. Sponge-hook.

18. Axle body (Wood.)
19. Axle tree (Iron.)
20. Under strap.

9. } Are also the extremities of
10. } the assembling bolts.
21. }

22. Large pointing-ring.
23. Small " "

Stock. { Head, groove, trail, and the rounding of the trail.

Digitized by Google

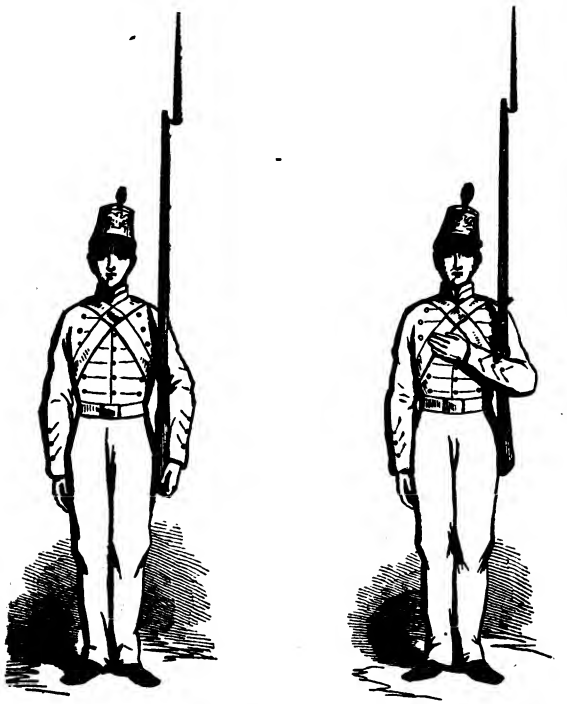
ADJUTANT GENERAL'S OFFICE,
Richmond, Va., December 8, 1859.

COL. F. H. SMITH,
Supt. Virginia Military Institute.

SIR:—The Governor directs me to request that you will detail Maj. William Gilham, of the Virginia Military Institute, to prepare a synoptical work for the instruction of the militia service. He will, in as short a space as possible, plainly describe, in his own way, the duties of officers, field and company, adding matter at his discretion.

By command of Governor Wise.

(Signed,) W. H. RICHARDSON,
Adjutant General.



GENERAL HEAD QUARTERS,
ADJUTANT GENERAL'S OFFICE,
Richmond, Va., Nov. 28, 1860.

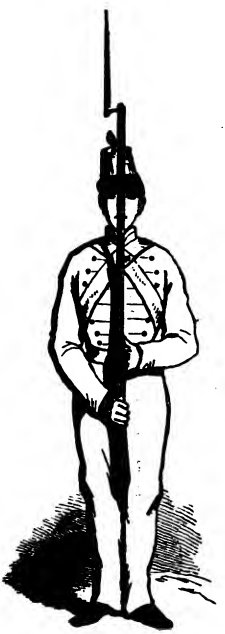
In pursuance of the provisions of an act for "the better organization of the militia," passed March 30, 1860, the Governor prescribes

Digitized by Google

for the use and instruction of the militia, "A Manual of Instruction for Volunteers and Militia, by Major William Gilham, of the Virginia Military Institute,"—the same conforming to the system of description and instruction ordered to be observed by the army of the United States.

By command of Governor Letcher.

WM. H. RICHARDSON,
Adjutant General.



EXECUTIVE DEPARTMENT,
ADJUTANT'S GENERAL'S OFFICE,
Milledgeville, Georgia, Feb. 6th, 1861.

I do not know that I can give you a better evidence of my appreciation of the Manual than by sending you the enclosed copy of the order adopting it for this State. It is the best effort for the instruction of Volunteers and Militia yet published in this country, and there can be no excuse now for Volunteers and Militia not being posted in the requirements of service, and how to fulfill them.

Very respectfully,
Your ob't serv't,

HENRY C. WAYNE,
Adjutant General.

Digitized by Google

EXECUTIVE DEPARTMENT,

ADJUTANT GENERAL'S OFFICE,

Milledgeville, Georgia, Feb. 1, 1861.

Gilham's Manual for Volunteers and Militia having been approved by the Commander-in-Chief, he orders that it be issued to the Volunteers and Militia of the State of Georgia for their government, and that it be strictly adhered to.

Nothing contrary to the tenor of this Manual will be enjoined, or permitted, in any part of the forces of the State of Georgia by any commander, be his rank what it may.

HENRY C. WAYNE,

Adjutant General.

STATE OF MISSISSIPPI.

ADJUTANT GENERAL'S OFFICE,

Jackson, February 1st, 1861.

SIR:—I am pleased to acknowledge the receipt of a copy of "Gilham's Manual for Volunteers and Militia," which you were so kind as to forward to me in December last.

In returning my thanks for the esteemed favor, I will remark that from the variety of subjects of which it treats, and the manner in

Digitized by Google

which they are detailed, I consider it an invaluable work, and one much needed in this State, and have, therefore, recommended it in my official report for the year 1860 to the Volunteer organizations of the State.

I am, sir,
Very respectfully,
W. L. SYKES,
Adjutant General.

New Orleans, Louisiana, Jan. 28th, 1861.

My Dear Sir:—I have carefully examined the volume, and have no hesitation in saying I consider it the very best work of the kind that has yet been published, and in testimony of my appreciation of its value, I have odered it to be adopted as the text-book for my Battalion—the Washington Artillery.

This I have considered due to you for the pains you have taken to give to the Volunteers and Militia a work entirely reliable, tfeating in general and in detail upon every matter connected with the duties of the Soldier.

Thanking you for your attention,
I am, very truly,
Your ob't serv't,
J. B. WALTON,
Major, commd'g Washington Artillery.

Digitized by Google

HEAD QUARTERS, FIFTH DIV., P. V.

Gilham's Manual is very *handy*, and supplies all that is desired by the Uniformed Militia. Its explanations are clear and concise; the Glossary useful in explanation of terms used in the Service, often misapplied from inability to define them. The various arms of the service, Light Artillery, Cavalry, Artillery, and Infantry, are treated upon fairly and understandingly. The duties of Officers, the detail of Camps, Arms and Ammunition, honors paid by the Troops, the School of the Company and Battalion, Courts Martial, &c., embrace all the subject useful and necessary to the Volunteer.

The unique form in which all the multifarious subjects are presented is an additional recommendation, both on the score of economy and convenience.

While congratulating you as the medium to present this valuable addition to the Military Library, and Major Gilham's successful labors, I take great pleasure to recommend *its adoption* by the State *Military Department* and the Volunteers.

Yours, very truly,

W. H. KEIM,
Major Gen'l, 5th Div., P. V.

Digitized by Google

DEAR SIR:—I have examined the whole work and consider it a work of the highest utility, and admirably executed.

A work on Military Discipline, adapted to the Volunteer System, has long been wanted, and I am free to say that "Major Gilham's Manual" supplied the void. I think it the most complete book of instruction I have ever seen, and it should be in the hands of every volunteer officer.

I congratulate you on the publication of a work of so much labor, industry, and judgment.

Yours, &c.,

E. C. WILLIAMS,
Brig. Gen'l, 3d Brigade, 5th Div., Pa. Volunteers.

To CHAS. DESILVER, Esq.

HEAD QUARTERS,

FIRST BRIGADE, EIGHTEENTH DIVISION,
MILITARY DEPARTMENT,
Allegheny County, Pa., Pittsburgh, Jan. 31st, 1861.

CHARLES DESILVER, Esq.,
1229 Chestnut street, Philadelphia.

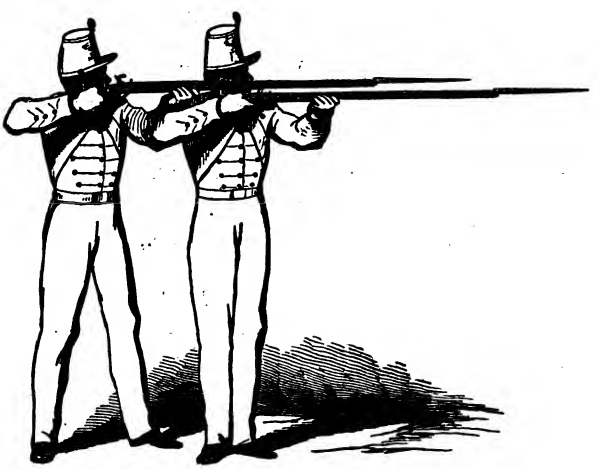
DEAR SIR:—I have examined Major William Gilham's "Manual of Instruction for the Volunteers and Militia" with interest and satisfaction. This work supplies a deficiency long felt in our service.

Digitized by Google

Our present system was established when the condition of military affairs was quite different, and before military art and science had contributed so largely toward the efficiency of the American army. We need a system based on the progressive experience of the past and suited to the exigencies of the present. This Manual supplies this deficiency. It embraces the tactical instruction used in each School of the Soldier; a simple, but accurate detail of Camp and Garrison duty; a general description of Arms, Ammunition, Battles, and Courts Martial. Also, a Glossary of Military Terms, and a copy of the "Articles of War." The language used is expressive of professional energy and practical experience, which entitles the contents to the consideration of those interested in military affairs, especially officers in the Militia, who lack the opportunity of becoming familiar with practical military knowledge.

Yours, truly,

JAS. S. NEGLEY,
Commanding 1st Brigade, 18th Division, P. V.



Having examined Major William Gilham's "Manual of Instruction for the Volunteers and Militia," I heartily recommend it for the use of the military in Pennsylvania, as a work of the kind has been long needed to assist the officers to acquire a knowledge of their duties.

J. M. K. SNODGRASS,
Major General.

Digitized by Google

Pittsburgh, February 1st, 1861.

Having examined Major Gilham's "Manual of Instruction for Volunteers and Militia," I cheerfully recommend it as a work long needed by the military of our State.

HIRAM HULTZ,
Commanding 1st Reg't Allegheny County Volunteers.

PITTSBURGH,

Allegheny Co., Pa.

We, the undersigned, having examined Maj. Gilham's "Manual of Instruction for Volunteers and Militia," do most heartily recommend it as the best work on military art and science yet published. It is a work long needed, and is indispensable to every man who takes an interest in military affairs.

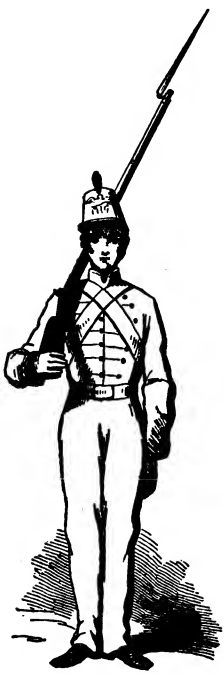
F. HARDTMAYER,
Lieut. Col. 1st Reg't Allegheny Co. Volunteers.
ALEX. HAYS,
Brigade Inspector of 1st Brigade, 18th Div. Volunteers.
DAVID CAMPBELL,
Captain Duquesne Grays.
THOS. A. ROWLEY,
Captain Washington Infantry.
S. A. McKEE,
Captain Jackson Ind't Blues.
LEOPOLD SAHL,
Captain 1st Brigade.
Capt. EDW. DE REU.
D. B. MORRIS,
1st Lieut. of the Washington Infantry.
WM. BENNETT,
2d Lieut. Duquesne Grays.
JAMES SHALFONT,
Adjutant 1st Reg't Allegheny Volunteers.

Digitized by Google

Scranton, Pa., Feb. 15th, 1861.

The Manual of Instruction for Volunteers and Militia of the United States, by Major William Gilham, is a very valuable work, and should be in the hands of all the officers of the Militia.

A. N. MEYLERT,
Brig Gen'l, 2d Brigade, 9th Div., P. V.



Philadelphia, January 17th, 1861.

DEAR SIR:—I have had much satisfaction in the examination of Major William Gilham's "Manual for Volunteers and Militia," and, so far as my ability to judge goes, have found it eminently adapted to the purpose for which it was compiled.

Besides the system of tactics, concisely and clearly laid down for all arms, it contains a vast amount of valuable information, important

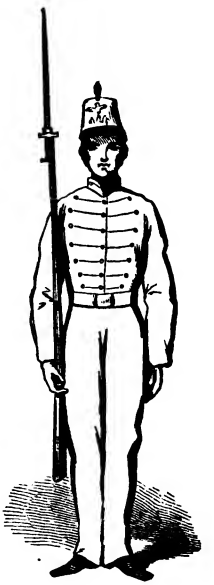
Digitized by Google

to the soldier, (whether professional or amateur,) which is to be found elsewhere only in many separate works.

The vocabulary of military terms contained therein is a very important addition to the work, and will be found of great value to all those who interest themselves in military matters.

Respectfully yours,

THOS. P. PARRY,
Capt. Washington Grays.



Philadelphia, February 6th, 1861.

DEAR SIR:—I have examined the Manual of Instruction for the Volunteers and Militia of the United States, by Major William Gilham, and take great pleasure in recommending it to the volunteers as a work that will be found to be of immense value to both officers and men.

Very respectfully yours,

DAVID F. FOLEY,
Capt. Philadelphia Grays,
1st Reg. Artillery, 1st Brigade, 1st Div. P. V.

Digitized by Google

DEAR SIR:—Permit me to thank you for a copy of Gilham's Manual of Instruction for the Volunteers and Militia. I consider the compilation of the work as unexceptionable; the manœuvers of each corps of the service being correctly and clearly explained. The Glossary which is prefixed is invaluable, and all who desire a perfect military knowledge should avail themselves of the opportunity here offered, and procure a copy.

Yours respectfully,

DAVID P. WEAVER,

Brigade Inspector.

1st Brigade, 1st Division, P. V.

Major FIRTH says:

Having carefully examined a work published by Mr. Charles Desilver, 1229 Chestnut street, Philadelphia, entitled "Manual of Instruction for Volunteers and Militia of the United States," by Major William Gilham, I take great pleasure in recommending it to the attention of the Volunteers and Militia of this City and State.

THOS. T. FIRTH,
Formerly Brigade Inspector, 1st Brig., 1st Div., P. M.

The Manual of Instruction for Volunteers and Militia, by William Gilham, has our hearty approval, and we think it really necessary for the improvement of our forces in military knowledge.

F. E. PATTERSON,
Colonel, 1st Artillery,
1st Brigade, 1st Div., P. V.
W. D. LEWIS, JR.,
Colonel, 1st Infantry, P. V.
THOS. C. JAMES,
Capt. 1st Troop Philadelphia City Cavalry.
W. A. LEACH,
Major 1st Reg't Art'y.
T. G. MOREHEAD,
Colonel Infantry, 1st Reg't Light Guards.
PHILIP BECKER,
Captain Black Hussars.
ALEX. MURPHY,
1st. Lieut. Company A., 1st Art'y.
WM. BARR,
Captain 3d Artillery.
WM. J. J. BRACELAND,
Capt. 1st Artillery.
E. C. WILLIAMS,
Brig. General, 3d Brigade.

Digitized by Google

A. N. MEYLERT,
Brig. Gen'l, 2d Brigade.
JOHN W. BROWN,
Brig. Judge Advocate, 3d Brig.
JNO. D. MILES,
Brig. Gen'l 2d Brig.
GEO. MEGEE,
Lieut. Col. 2d Reg't Nat. Guards.
A. H. COFFROTH,
Major Gen'l, 16th Division.
DANIEL HERR,
Colonel 1st Reg't.
M. A. F. CARR, Brig. General.
R. P. CUMMINS, Brg. Inspector.
J. PUGH, Brigade Inspector.
THOS. W. DUFFIELD,
Captain Jackson Art'y.
JOS. JACK,
Brig. Gen'l, 17th Div.
A. HUSTAND GLATZ,
Brig. Gen'l, 4th Div.
D. KILBORN JACKSON,
Major Gen'l, 11th Div.

And many others.

Digitized by Google

(In Preparation.)

ELEMENTARY PHYSIOLOGY:

A CONCISE DESCRIPTION

OF

THE FUNCTIONS OF ORGANIZED BODIES,

AND

Especially of Man.

ADAPTED TO THE USE OF COLLEGES, ACADEMIES, AND SCHOOLS GENERALLY

WITH NUMEROUS ILLUSTRATIONS.

BY RICHARD J. DUNGLISON, M.D.

One vol., royal 12mo., half-morocco binding. Price $

This work will be a comprehensive and accurate text-book on the interesting and important subject of which it treats, and will be found well adapted to the purposes of Colleges, Academies, and Schools, as well as of great utility to the general reader. It will embrace, so far as may be deemed necessary, the applications of Descriptive Anatomy, Microscopy, and Organic Chemistry to the elucidation of the various subjects.

(In Preparation.)

GLIMPSES

OF

ANIMATED NATURE;

COMPRISING DESCRIPTIONS OF

Birds, Animals, Fishes, Reptiles, Insects, Etc.;

WITH

SKETCHES OF THEIR PECULIAR HABITS AND CHARACTERISTICS;

COMPILED FROM THE WRITINGS OF

Cuvier, Buffon, Goldsmith, Bigland, Wood, Godwin, Audubon, Cassin,

AND OTHER EMINENT NATURALISTS,

AND

ADAPTED TO THE CAPACITIES OF ALL READERS.

BY J. W. O'NEILL.

Copiously and Beautifully Illustrated.

In one royal 12mo. volume, half morocco binding. Price $

In this volume will be presented accurate descriptions of every variety of Bird, Animal, Reptile, Insect, Fish, etc., written in plain and familiar language, and divested of those technicalities which are calculated rather to embarrass than to inform the ordinary reader. It will be so arranged as to fill equally well a place in the family library, or a vacuum on the school-desk; for which it will be adapted by judicious Questions appended at the close of the volume. The Illustrations will be true to Nature, and engraved in the very highest style of the art.

Digitized by Google

STANDARD WORKS
ON
MATHEMATICS, ETC.,
PUBLISHED BY CHARLES DESILVER,
714 CHESTNUT STREET, PHILADELPHIA.

SMITH'S MATHEMATICAL SERIES.

AMERICAN STATISTICAL ARITHMETIC,

DESIGNED FOR ACADEMIES AND SCHOOLS.

BY FRANCIS H. SMITH, A.M.,
SUPERINTENDENT AND PROFESSOR OF MATHEMATICS IN THE VIRGINIA MILITARY INSTITUTE, LATE PROFESSOR OF MATHEMATICS IN HAMPDEN SIDNEY COLLEGE, AND FORMERLY ASSISTANT PROFESSOR IN THE UNITED STATES MILITARY ACADEMY, WEST POINT,
AND
R. T. W. DUKE,
ASSISTANT PROFESSOR OF MATHEMATICS IN THE VIRGINIA MILITARY INSTITUTE.

Fourth Edition.

In one volume, royal 18*mo., containing* 282 *pages, half-roan binding. Price,* 38 *cents.*

INTRODUCTION
TO
SMITH AND DUKE'S ARITHMETIC.

BY FRANCIS H. SMITH, A.M.,
SUPERINTENDENT AND PROFESSOR OF MATHEMATICS IN THE VIRGINIA MILITARY INSTITUTE.

One vol., 18*mo.,* 93 *pages, half-roan binding. Price* 20 *cents.*

A KEY
TO
SMITH AND DUKE'S ARITHMETIC.

PREPARED BY WILLIAM FORBES,
ASSISTANT PROFESSOR OF MATHEMATICS IN THE VIRGINIA MILITARY INSTITUTE.

One volume, 18*mo.,* 112 *pages, half-roan binding. Price,* 30 *cents.*

The design of the author of the "Statistical Arithmetic" has been to illustrate the various rules by examples selected, whenever practicable, from the most prominent facts connected with the history, geography, and statistics of the United States. Arithmetic thus becomes a medium for communicating much important information, which will readily be apprehended by the youthful mind, and be impressed upon it throughout life.

Digitized by Google

Standard Works on Mathematics, Etc.

ENDORSEMENTS OF SMITH'S ARITHMETICS.

The Board of Directors of the Literary Fund Board having examined the Introduction to Smith and Duke's American Statistical Arithmetic, take pleasure in recommending the work especially for the purpose for which it is designed, "to prepare beginners for the study of the more advanced parts of the science." The plan of inculcating valuable statistical information in the illustration of arithmetical rules is not only novel and attractive, but useful, and is doubtless calculated to make a strong impression on the minds of youth. — *J. Brown, Jr., Second Auditor Literary Fund Board, Va.*

The character of this work is simplicity, and the rules are given in plain and brief language. It is the only Arithmetic we have ever seen which can truly be called American, and as all the illustrations are drawn from the most prominent facts connected with the history, geography, and statistics of our country, it will be seen that while the pupil is advancing in arithmetic, he is also acquiring valuable statistical information which will be useful at all periods of life. — *Saturday Evening News, Washington, D. C.*

"Smith and Duke's American Statistical Arithmetic" evidently simplifies the process of calculation, while it lets the pupil into the *rationale* or science of its rules of computation — and as might be expected, from the practical sphere in which its authors have been operating, much of the redundancy of former publications on Arithmetic has been made to give place to rules and illustrations more laconic, while more accessible to the general minds of students. — *Norfolk Daily Courier.*

The American Statistical Arithmetic, and an Introduction to the same, are works of more than ordinary merit. With clear and definite Rules, they convey a large amount of valuable information not usually within the reach of students of Arithmetic. Their general introduction will aid the cause of sound instruction in the schools and academies of our country. — *J. H. Brown, A. M., late Principal of Zane Street School, Philadelphia.*

I consider it decidedly the best Arithmetic I have seen, not only as regards the valuable statistical information it contains, but also in the arrangement, and the very clear and simple explanations of the rules which it gives. — *Professor Pike Powers, late of Virginia University.*

SMITH'S BIOT.

AN ELEMENTARY TREATISE ON ANALYTICAL GEOMETRY.

TRANSLATED FROM THE FRENCH OF J. B. BIOT,

BY FRANCIS H. SMITH, A. M.,

SUPERINTENDENT AND PROFESSOR OF MATHEMATICS IN THE VIRGINIA MILITARY INSTITUTE.

A New and Revised Edition,

In one volume, 8vo, containing 302 pages, full-bound in sheep. Price $1.50.

OPINIONS OF EDUCATIONSTS.

I have long lamented the defect in logical arrangement of most of the principal treatises on the subject of Analytical Geometry, with regard to one of its most important applications — *Conic Sections.* The treatise of *Biot* comes precisely up to my idea of the proper arrangement in this respect. — *Professor Saunders, of William and Mary College.*

It gives the definitions and some of the most abstruse parts of the science with greater clearness and perspicuity than any similar work with which I am acquainted — and I also think the copious examples given a great desideratum. — *A. W. Millspaugh, Principal of the Classical School, Farmville.*

I have your Geometry, and, after a careful examination of it, I do not hesitate to pronounce it an excellent work — the best on the subject that I have seen. I shall therefore adopt it immediately in the academy. — *Professor John B. Strange, Norfolk Academy.*

Digitized by Google

STANDARD WORKS ON MATHEMATICS, ETC.

SMITH'S ALGEBRA.

AN ELEMENTARY TREATISE ON ALGEBRA,

PREPARED FOR THE USE OF

THE CADETS OF THE VIRGINIA MILITARY INSTITUTE

AND ADAPTED TO

THE PRESENT STATE OF MATHEMATICAL INSTRUCTION

IN THE

SCHOOLS AND COLLEGES OF THE UNITED STATES.

BY FRANCIS H. SMITH, A. M.,

SUPERINTENDENT AND PROFESSOR OF MATHEMATICS IN THE VIRGINIA MILITARY INSTITUTE;

TOGETHER WITH

A LARGE SELECTION OF PROMISCUOUS EXAMPLES,

CAREFULLY SELECTED FROM THE MOST APPROVED AUTHORITY,

BY S. CRUTCHFIELD,

ADJUNCT PROFESSOR OF MATHEMATICS IN THE VIRGINIA MILITARY UNIVERSITY.

NEW EDITION, ENLARGED.

In one volume, demi-octavo, containing 379 pages, half turkey-morocco binding. Price $1.

This work is designed to present as complete an elementary course of Algebra as the time devoted to the study of Mathematics in the Colleges of the United States will allow, while it will be equally within the comprehension of the pupil of the High School or the Academy.

The author has adopted those explanations and demonstrations which an experience of many years in teaching, and a careful comparison of standard authors, have shown to be best. Without following the system of any other writer, he has derived important aid from the works of *Garnier, Bézout, Reynaud, Bourdon, Lacroix, Francœur, Euler, Hutton, Thomson, Goodwyn, Scott,* and the *Encyclopedia Metropolitana.* Many of his examples have been selected from the valuable edition of Hutton's Mathematics, by Professor Rutherford, of the Royal Military Academy, Woolwich.

This Algebra covers the full course of Davies' Bourdon, and contains a new and beautiful demonstration of the Binomial Theorem in the case of an Exponent, by Professor Pike Powers, late of the University of Virginia.

ENDORSEMENTS BY PROFESSORS, ETC.

I have been using "Smith's Algebra" for nearly twelve months, and can truly say it answers my purpose better than any other I am acquainted with. It presents the leading principles of the science in a concise and simple form, and especially those higher principles which give beginners most trouble, so that I have never had my classes master them before with so little difficulty. — *Prof. P. Powers, late of Virginia University.*

This very excellent Algebra has been prepared with the greatest possible care, on an eclectic basis, from the best authorities. As an introduction it contains a very interesting history of algebra. — *Philadelphia Evening Bulletin.*

Digitized by Google

A SYSTEM OF ARITHMETIC,

On an Original Plan;

DESIGNED AS

AN IMPROVEMENT ON THE SYSTEMS IN COMMON USE.

BY SIMON KERL, A. M.,

WASHINGTON UNIVERSITY, ST. LOUIS, MO.

One vol. 18*mo*, *containing* 162 *pages, half-roan binding. Price* 30 *cents.*

OPINIONS OF EDUCATIONISTS.

"Kerl's Primary Arithmetic" is just the thing wanted to fill a vacancy among the school books now used, which had not been adequately supplied before. We shall adopt it in the Preparatory Department of the University; and we recommend it to all Primary schools, confidently believing that they will find it a most valuable auxiliary in laying the foundation of mathematical knowledge. N. D. TIRRELL, J. D. LOW, } *Prins. of Ac. Depart. Washington Univer.*

All parts of Kerl's Primary Arithmetic are illustrated by an unusually large number of examples; and I believe that any student, with ordinary attention, will be almost compelled to understand it. I therefore commend it highly, and hazard the opinion that it will be approved by every teacher who will give it a fair trial.—*W. W. Hudson, Pres. Missouri Univ.*

I concur in the above recommendation of Mr. Simon Kerl's Arithmetic.—*B. S. Head, Professor of Mathematics in Missouri University.*

I consider "Kerl's Primary Arithmetic" not only a practical and analytical work, but eminently adapted to the speedy and successful acquisition of a thorough knowledge of the great and fundamental principles which are the very foundation upon which alone *can be built* the sublime structure of mathematical knowledge.—*James J. Searcy, Principal of Primary Department, Missouri University.*

In simplicity, scientific arrangement, comprehensiveness, practical utility, and adaptation to the taste and capacity of the young, I consider Kerl's Arithmetic, Part I., superior to any similar book now used in this State. I therefore recommend its adoption by the Common Schools of our State, and should be pleased to see it brought into general use by the teachers.—*H. B. Stark, Superintendent of Common Schools, Jefferson, Mo.*

I have examined Kerl's Elementary Arithmetic sufficiently to satisfy myself that the work is admirably well calculated to attain the end which the author has in view. The child that has been carefully drilled in the manner prescribed, will make an expert accountant.—*Francis P. O'Loughlen, S. J., Professor of Mathematics in St. Louis University.*

I am delighted with the simplicity and clearness with which you have presented the fundamental principles of Arithmetic, and hope that you will receive sufficient encouragement to give us a complete series of Mathematics. I am inclined to adopt it as a text-book as soon as convenient, and encourage others to do likewise.—*J. A. Hollis, Baptist Fem. Col. Columbia, Mo.*

OPINIONS OF THE PRESS.

"Kerl's System of Arithmetic" aims to furnish such a series of mental exercises as will enable the pupil to acquire in the easiest and most direct manner all the knowledge requisite for undertaking and prosecuting with rapidity and accuracy the study of written Arithmetic. We recommend it as a very good introduction to the more abstract and difficult branches of Mathematics.—*Missouri Republican.*

I am fully satisfied that if the plan of Kerl's Elementary Arithmetic were fully carried out by teachers, written arithmetic would be better understood, and each pupil would perform his calculations in a more satisfactory manner than heretofore.—*Charles Stewart, formerly Teacher of Mathematics in St. Louis, Missouri.*

We think well of its plan and design, and commend the work to the attention of instructors of youth.—*Missouri Statesman.*

We believe it will answer admirably the purpose for which it was intended.—*Mo. Argus.*

Digitized by Google

STANDARD WORK
ON
AGRICULTURE, HORTICULTURE, ETC.,
PUBLISHED BY CHARLES DESILVER,
714 CHESTNUT STREET, PHILADELPHIA.

A BOOK FOR EVERY AMERICAN.

THE
AMERICAN FARMER'S
NEW AND UNIVERSAL HAND-BOOK;
CONTAINING
Complete and well-digested Instructions
REGARDING THE
TREATMENT OF SOILS; THE OPERATIONS OF PRODUCTIVE FIELD-HUSBANDRY; THE PLANTING AND CULTIVATION OF THE DIFFERENT KINDS OF ROOTS, GRAINS, GRASSES, SUGAR-CANE, COTTON, TOBACCO, RICE, AND TEA; THE CULTURE OF PLANTS YIELDING OILS AND DYES; KITCHEN-GARDENING; DAIRY-PRACTICE; FRUIT-GROWING; CIDER-MAKING; THE MANAGEMENT OF VINEYARDS AND THE VINTAGE; THE MANAGEMENT AND DISEASES OF ANIMALS, FOWLS, AND BEES; CULTURE OF FLOWERS, ORNAMENTAL AND USEFUL TREES, ETC.; CONSTRUCTION OF FARM BUILDINGS; HEDGES, AND THEIR CULTURE; GRAFTING, BUDDING, PRUNING, THE GREAT DISEASES OF FRUITS AND PLANTS; INSECTS INJURIOUS TO ANIMALS, AND FRUIT-TREES, FLOWERS, SHRUBS, VINES, CEREALS, ROOTS, COTTON, ETC., ETC.
TO WHICH IS ADDED
AN APPENDIX,
COMPRISING
TABLES FOR THE MEASUREMENT OF LAND, ETC., ETC.
THE WHOLE EMBODYING
PLAIN, PRACTICAL, AND COMPREHENSIVE DETAILS OF AGRICULTURAL ECONOMY IN ALL DEPARTMENTS, ADAPTED TO THE UNITED STATES AND THE CANADAS.
BY PRACTICAL AGRICULTURISTS.
Re-Edited, with Numerous Additions,
BY J. W. O'NEILL.
ILLUSTRATED BY NEARLY FOUR HUNDRED BEAUTIFUL ENGRAVINGS
In one volume, demi-octavo, 724 pages, bound in morocco, marbled edges, price $2.50; cloth, gilt, bevelled boards, $2.50.

This volume is the result of patient and laborious study, diligent investigation, and enlightened scientific experiment, confirmed by careful and discriminating practice. It comprises within its pages, and treats at length, not only every topic or subject spoken of by the most eminent practical writers on Agricultural Economy, in all its ramifications, but likewise many which have been overlooked, or which have received but a passing notice at the hands of all other authors. The information here given cannot be procured in any other single work; and the farmer will learn more from the perusal of these pages than he could were he to toil through an entire library of books devoted to special subjects. Every topic is thoroughly illustrated, and neither pains nor expense have been spared to make the book what it claims to be — a correct guide to the farmer, the planter, the dairyman, the horticulturist, etc.

93

Digitized by Google

STANDARD SPEAKERS.

FLOWERS OF ELOCUTION,

CONSISTING OF

POEMS, ESSAYS, TALES, DIALOGUES, AND DRAMATIC SKETCHES.

ARRANGED FOR

A CLASS-BOOK.

BY MRS. CAROLINE LEE HENTZ,

AUTHOR OF "LINDA," "RENA," THE "PLANTER'S NORTHERN BRIDE," ETC.

In one 12mo. volume, comprising 322 pages, half-morocco binding. Price, $1.

"Brave youth! thy words are kindling — they have waked
Ardors I deemed despair had quench'd forever!
I rushed with desperate purpose, to this wild;
Driven to the verge of madness! Thou hast come
Like a redeeming spirit 'mid the storm,
And brought the wanderer back to reason's goal.
Ask not my name or rank. The sounding blasts
May bear them far as their wild wings extend.
Give me no name; but when in these free vales
Rumor is busy o'er the stranger's relics,
Say that thou found'st him prostrate in despair,
And that thy hand the fallen pillar raised,
To prop awhile fair Freedom's glorious dome."

OPINIONS OF THE PRESS.

The "Flowers of Elocution" is the name of a volume from the pen of a lady too well known in the literary world to need further commendation. Suffice it to say that, like everything else from her elegant pen, it abounds with the most beautiful gems. — *Bedford Sentinel, Liberty, Va.*

We need not say one word to prepossess the public in favor of this charming volume, this casket of literary and poetic pearls. The authoress has long since secured a sympathy in the hearts of both old and young, for the lovely offspring of her head and heart. — *Philadelphia Saturday Courier.*

The "Flowers of Elocution" only differs from "Sargent's Selections" in being entirely the production of one writer, instead of comprising a selection from different authors. With few exceptions, we find the pieces in this book well suited to their purpose. — *Christian Times, Chicago, Ill.*

The dramatic scenes, founded on Revolutionary events, are the most striking portion of the volume, and appear well adapted for representation in private circles. — Designed for a class-book, it seems to be every way suited to the purpose. — *N. Y. Daily Times.*

There is a purity of matter, and excellence of aim in this book, which recommends it to our favor. It is specially adapted for advanced classes of young ladies, and furnishes some pleasant, well-sustained dialogues. — *N. Y. Sun.*

This volume bears the bright impress of the authoress' mind, "is a fit offering to innocence and youth, and deserves the kindest reception from all hearts that hold congeniality with what is fair, and lovely, and of good report." — *Culpepper Weekly (Va.) Observer.*

The "Flowers of Elocution" is the title of a pleasant volume of prose and poetry, compiled as a class-book, by the late Caroline Lee Hentz. — *New Orleans Bee.*

Digitized by Google

Digitized by Google

Digitized by Google

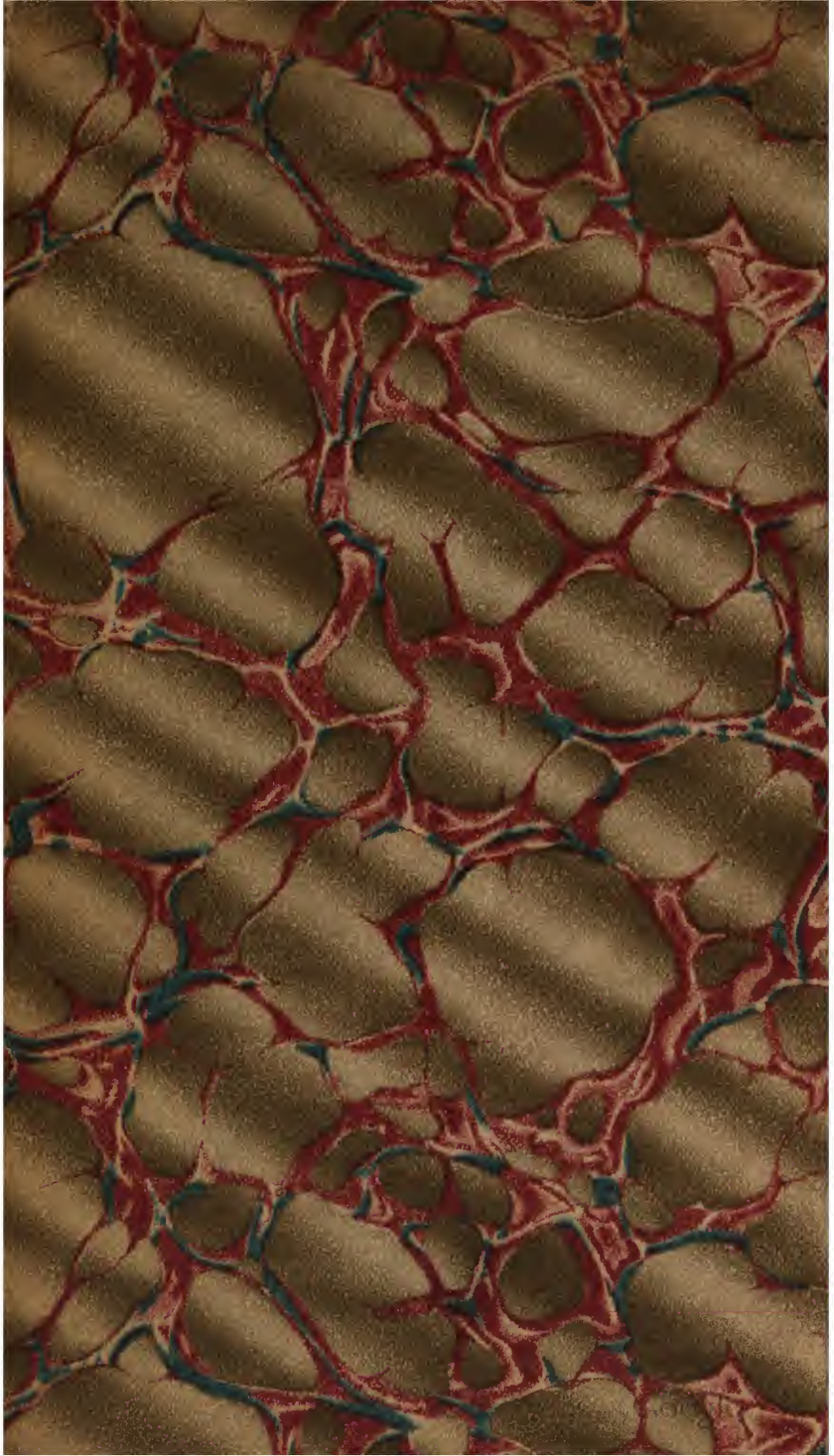
3 2044 024 332 264

A FINE IS INCURRED IF THIS BOOK IS NOT RETURNED TO THE LIBRARY ON OR BEFORE THE LAST DATE STAMPED BELOW.

WIDENER

JUL 10 1972 JUN 18 1999

CANCELLED

413645

Digitized by Google